

FIELD TRIPS OF THE CLUB

WEEK END AT BRANCHVILLE, N. J., MAY 21 TO 23

This twelfth nature outing at Branchville was attended by over one hundred members and friends of the club. On Friday evening the group assembled in the recreation hall of The Pines to listen to Dr. Henry B. Kummel, Director of the Department of Conservation and Development of New Jersey, describe the geological formations of north-western New Jersey, from the Pre-Cambrian of at least 700,000,000 years ago down to the glacial deposits of the Quaternary of less than 35,000 years ago. Mr. H. Harmsted Chubb, of the American Museum of Natural History, showed a beautiful series of plant and bird pictures from the Catskill Mountains, describing intimate details of the lives of the birds shown. Saturday morning most of the group were up at five thirty to go on the bird trips led by Mr. and Mrs. Chubb and Mr. Evans. Other bird trips were taken during the day Saturday and on Sunday morning. A total of over eighty species were seen. For the second year in succession a nest of the American Bittern was found at the edge of the swampy area below the ridge on which The Pines is located. On the bird trip to Culver Lake Sunday morning the party saw close together Wilson's, Wood, Olive-backed, and Grey-cheeked Thrushes and the two water thrushes, while at another point all of our swallows—Barn, Eve, Rough-winged, Bank and Tree—were seen. Geological trips were led by Dr. Kummel on Saturday and Sunday, the last to High Point where in panorama the mountain ridges and valleys are shown for many miles and much of the geological history of the region can be visualized.

Dr. Forman T. McLean of the New York Botanical Garden led trips for the study of trees and flowering plants, and Mr. George T. Hastings, trips for flowers and general nature study. Saturday evening Dr. McLean showed a large number of colored slides of our local trees, describing them and their relationships. Mr. Hastings outlined the life of Linnaeus, an appropriate subject, as Sunday was the 230th anniversary of the birth of the first great botanist and the day on which thousands of his enthusiastic followers for years made botanical excursions in his memory.

Mrs. Cora R. Smith and Mr. W. H. Husk had arranged to make all of the party comfortable at The Pines, though owing to the large number the "annex" had to be opened and a few late registrants quartered in the village about a mile away. The woods about the inn were beautiful as always, masses of columbine still in blossom, the yellow lady's slippers in full bloom and a few flowers on the purple clematis (*Clematis verticillaris*), while the limestone loving ferns—walking, wall rue, cliff brake, maidenhair spleenwort were in the crevices where the members of other outings had learned to look for them.

GEORGE T. HASTINGS

TRIP OF MAY 31 TO BRANCHVILLE, CONN.

The most interesting novelty found on the field trip on May 31, 1937, at Branchville, Conn., led by Miss Eleanor Friend, was the Featherfoil, or Water Violet, *Hottonia inflata*, found in a new station for Connecticut, and for the range of the Club, in Weir's Pond, near the border of Ridgefield and Wilton, south of Branchville. Mr. E. B. Harger, President of the Connecticut Botanical Society, who was in the party, said that it was the third station reported in Connecticut, the others being in the vicinity of New Haven. Norman Taylor, in his *Flora of the Vicinity of New York*, New York Botanical Garden, 1915, records it as local in the coastal region of our area, and in Bergen and Hudson Counties, N. J. One of the Bergen County stations was, I think, in the swamp near Moonachie, where *Magnolia virginiana*, *Rhododendron maximum* and *Chamaecyparis thyoides* still persist, though threatened with extermination.

The colony in Weir's Pond is fairly numerous, about thirty plants in various stages of development being counted, near the dam at the north end, and in shallow water on the east side. There may be more in waters toward the center of the pond. A few were found in bloom, and specimens were sent to the New York and Brooklyn Botanic Botanical Gardens, on behalf of the local flora committee of the club.

I have not read any account of the mechanics of this interesting aquatic member of the *Primulaceae*, but it apparently shares the habit of some other aquatic plants, like the Bladderworts, in having a winter resting stage, on the bottom of quiet waters, and, when spring comes, the flower stem develops, and extends, its hollow, inflated character supplying a buoy which

raises the flowers a few inches above the surface of the water when they are ready to bloom.

It comes into bloom in late May, and continues in bloom until August. We saw a number of plants resting on the bottom in a foot of water with the flower stalks just beginning to arise from the rooting stem. These stalks were only an inch or so high and at that stage apparently not enough buoyancy had developed to raise the plant to the surface. But, as the flowers form and the buds appear, the inflated stem extends to several inches in length, and its air chambers together with some probable degree of lifting power furnished by the finely dissected leaves, developing anew for the season bring the stems, with the interrupted raceme, of whitish, five-parted flowers, whorled at the contracted joints, to a floating condition in which the buds are exposed to the air and open. After the seeds are ripened, toward autumn, the whole plant, which floats loosely about in the water, sinks to the bottom for the winter.

Ricciocarpus natans, one of our floating hepatics was also found in Weir's Pond. A plant new to most of us, was *Lysimachia* (*Naumburgia*) *thyrsiflora*, the Tufted Loosestrife, which was apparently well established and blooming thriftily in a water garden of wild plants on the grounds of Mr. Morehouse, in Branchville. Mr. Harger said it is not common in Connecticut and Taylor records it as local and scattered in our club range.

RAYMOND H. TORREY

TRIP OF JUNE 6 TO THE HILLS SOUTH OF CHESTER,
ORANGE COUNTY, NEW YORK

Due to threatening weather and the fact that this year happened to be an unusually good one for wild strawberries, our party did not climb beyond the lowermost ridges of Sugarloaf Mountain, but spent time on Durland Hill, which lies between Sugarloaf and the town of Chester. While not affording the magnificent view to be seen from all sides of Sugarloaf, this hill (about 850 feet high) appears to be much richer in plants, and, like Sugarloaf, is composed of slaty rocks, which foster a strikingly different flora from that of the crystalline Ramapo Mountains to the eastward. The slopes of Durland Hill are heavily wooded with oaks and hickories, providing a good display of *Hepatica* in early spring. The chief plant of interest in the ascent from the southeast is the excessively rare *Lespedeza Brittonii*,

not in bloom at the time of our visit. Our attention was soon drawn to several trees of slippery elm (*Ulmus fulva*) and a few clumps of horse gentian (*Triostéum aurantiacum*) which grows in rank profusion farther up toward the open summit. As one approaches the summit, open shale ledges are of great interest. Here are several ferns: *Asplenium platyneuron*, *Cystopteris fragilis*, *Woodsia obtusa* and *Woodsia ilvensis*, the last-named species appearing also in exceptional abundance on shaded ledges at the western part of the summit. Flowers of a form of *Cerastium arvense* with very narrow leaves, which I had mistaken previously for *Phlox subulata*, dotted the crevices of the exposed rocks. With a little hunting, we found basal leaves of *Ranunculus fascicularis*, accompanied by the swollen fascicled roots below. Here were also *Arabis lyrata* and *laevigata*, the shrub-like *Celtis occidentalis* var. *pumila*, *Geranium carolinianum* var. *confertiflorum* Fernald, *Myosotis virginiana*, *Pentstemon hirsutus*, and *Cardamine parviflora*. In loamy borders appeared, to our great surprise, mats of *Oxalis violacea*, still with traces of flowering heads, and easily recognized by the bulbous rootstocks. Here and there were clumps of dwarf oak (*Quercus prinoides*) which one associates with the pine barrens of Long Island. The sedges to be expected in such a locality—*Carex cephalophora*, *C. Muhlenbergii* var. *enervis*, *C. pennsylvania*, *C. convoluta*—were abundant; *C. umbellata*, common on the summit of Sugarloaf, seemed to be lacking. Clumps of the handsome bronzed and somewhat-nodding inflorescences of *Carex Bicknellii* occur abundantly on the open summits, and a little later in the season, buffalo grass (*Bouteloua curtipendula*) and the comparatively rare *Panicum philadelphicum* are to be found on the exposed ledges. *Polygonatum biflorum* grows well on sunny ledges and was just coming into flower at this date whereas *P. pubescens*, mostly confined to shaded woods, was in full bloom two weeks earlier. A thicket of *Viburnum affine* var. *hypomalacum* (*V. pubescens* of Gray's Manual) mingled with *Cornus paniculata*, fringes the summit, the open area being covered largely by *Potentilla arguta*, species of *Andropogon*, and isolated patches of *Quercus ilicifolia* and *Vaccinium stamineum*. Our descent of the hill was impeded by strawberries, and the forthcoming attack on Sugarloaf was halted by a downpour which turned back even the most valiant members.

H. K. SVENSON